## CPC COOPERATIVE PATENT CLASSIFICATION

## C01P INDEXING SCHEME RELATING TO STRUCTURAL AND PHYSICAL ASPECTS OF SOLID INORGANIC COMPOUNDS

## **NOTES**

2004/11 . . with a prismatic shape

2004/13 . . Nanotubes

2004/12 . . with a cylindrical shape

- 1. This subclass constitutes an internal scheme for indexing only.
- 2. The indexing scheme is used to identify structural and physical aspects of solid inorganic compounds, already classified in class <u>C01</u> or subclass <u>C09C</u>.

2002/00	Crystal-structural characteristics	2004/133	Multiwall nanotubes
2002/01	depicted by a TEM-image	2004/136	Nanoscrolls, i.e. tubes having a spiral section
2002/02	Amorphous compounds	2004/16	Nanowires or nanorods, i.e. solid nano-fibres
2002/04	Compounds with a limited amount of crystallinty, e.g. as indicated by a crystallinity index		with two nearly equal dimensions between 1-100 nanometer
2002/08	• Intercalated structures, i.e. with atoms or molecules	2004/17	Nanostrips, nanoribbons or nanobelts, i.e. solid
	intercalated in their structure		nano-fibres with two significantly differing
2002/10	• One-dimensional structures		dimensions between 1-100 nanometer
2002/20	Two-dimensional structures	2004/20	• extending in two dimensions, e.g. plate-like
2002/22	layered hydroxide-type, e.g. of the hydrotalcite-	2004/22	with a polygonal circumferential shape
	type	2004/24	Nanoplates, i.e. plate-like particles with a
2002/30	Three-dimensional structures		thickness from 1-100 nanometer
2002/32	spinel-type (AB <sub>2</sub> O <sub>4</sub> )	2004/30	• extending in three dimensions
2002/34	• perovskite-type (ABO <sub>3</sub> )	2004/32	Spheres
2002/36	• pyrochlore-type $(A_2B_2O_7)$	2004/34	hollow
2002/50	• Solid solutions	2004/36	fragmented
2002/52	containing elements as dopants	2004/38	cube-like
2002/54	• • one element only	2004/39	parallelepiped-like
2002/60	Compounds characterised by their crystallite size	2004/40	prism-like
2002/70	• defined by measured X-ray, neutron or electron	2004/41	octahedron-like
	diffraction data	2004/42	(bi)pyramid-like
2002/72	• • by d-values or two theta-values, e.g. as X-ray	2004/45	Aggregated particles or particles with an
	diagram		intergrown morphology
2002/74	by peak-intensities or a ratio thereof only	2004/50	Agglomerated particles
2002/76	by a space-group or by other symmetry	2004/51	Particles with a specific particle size distribution
	indications	2004/52	highly monodisperse size distribution
2002/77	by unit-cell parameters, atom positions or	2004/53	bimodal size distribution
	structure diagrams	2004/54	• Particles characterised by their aspect ratio, i.e. the
2002/78	by stacking-plane distances or stacking sequences		ratio of sizes in the longest to the shortest dimension
2002/80	. defined by measured data other than those specified	2004/60	Particles characterised by their size
	in group <u>C01P 2002/70</u>	2004/61	Micrometer sized, i.e. from 1-100 micrometer
2002/82	by IR- or Raman-data	2004/62	Submicrometer sized, i.e. from 0.1-1 micrometer
2002/84	by UV- or VIS- data	2004/64	Nanometer sized, i.e. from 1-100 nanometer
2002/85	by XPS, EDX or EDAX data	2004/80	Particles consisting of a mixture of two or more
2002/86	by NMR- or ESR-data		inorganic phases
2002/87	by chromatography data, e.g. HPLC, gas chromatography	2004/82	• • two phases having the same anion, e.g. both oxidic phases
2002/88	by thermal analysis data, e.g. TGA, DTA, DSC	2004/84	one phase coated with the other
2002/89	by mass-spectroscopy	2004/86	Thin layer coatings, i.e. the coating thickness
2002/90	Other crystal-structural characteristics not specified		being less than 0.1 time the particle radius
	above	2004/88	Thick layer coatings
2004/00	Particle morphology	2004/90	Other morphology not specified above
2004/01	depicted by an image	2006/00	Physical properties of inorganic compounds
2004/01	obtained by optical microscopy		
2004/03	obtained by SEM		NOTES
2004/04	obtained by SEM     obtained by TEM, STEM, STM or AFM		1. Compounds having molecular sieve properties are
2004/10	• extending in one dimension, e.g. needle-like		classified in <u>C01B 37/00</u> , <u>C01B 39/00</u> .
2004/10	with a prismatic shape		2. The following codes are only to be used for

CPC - 2017.02

physical values deviating significantly from the

average usual values.

## C01P

2006/10	Solid density
2006/11	• Powder tap density
2006/12	Surface area
2006/13	thermal stability thereof at high temperatures
2006/14	• Pore volume
2006/16	Pore diameter
2006/17	Pore diameter distribution
2006/19	• Oil-absorption capacity, e.g. DBP values
2006/20	Powder free flowing behaviour
2006/21	• Attrition-index or crushing strength of granulates
2006/22	. Rheological behaviour as dispersion, e.g. viscosity,
	sedimentation stability
2006/32	Thermal properties
2006/33	Phase transition temperatures
2006/34	Melting temperatures
2006/35	Boiling temperatures
2006/36	Solid to solid transition temperatures
2006/37	Stability against thermal decomposition
2006/40	Electric properties
2006/42	Magnetic properties
2006/44	. Alpha, beta or gamma radiation related properties
2006/60	· Optical properties, e.g. expressed in CIELAB-
	values
2006/62	L* (lightness axis)
2006/63	• • a* (red-green axis)
2006/64	• • b* (yellow-blue axis)
2006/65	Chroma (C*)
2006/66	Hue (H*)
2006/80	<ul> <li>Compositional purity</li> </ul>
2006/82	• • water content
2006/88	Isotope composition differing from the natural
	occurrence
2006/90	<ul> <li>Other properties not specified above</li> </ul>

CPC - 2017.02